IN THE CLAIMS:

Please cancel Claims 28-33, without prejudice or disclaimer, and amend Claims 1, 2, 4-10, 12-14, 16, 17, 19, 22, and 24-27 as indicated below. The following is a complete listing of claims and replaces all prior versions and listings of claims in the present application:

Claim 1 (original): A method of measuring performance parameters of an imaging device, said method comprising the steps of:

maintaining a test pattern image, said test pattern image comprising alignment features and image analysis features;

imaging a test chart using said imaging device to form a second image, said test chart containing a representation of said test pattern image;

registering said test pattern image and said second image using region based matching operating on said alignment features; and

measuring said performance parameters by analysing said image analysis features.

Claim 2 (currently amended): The method as claimed in claim 1, wherein said imaging device is a camera, and said test chart is a self-luminous device displaying said test pattern image.

Claim 3 (original): A method of measuring performance parameters of a printer, said method comprising the steps of:

maintaining a test pattern image, said test pattern image comprising alignment features and image analysis features;

printing said test pattern image using said printer to form a test chart;

imaging said test chart using a calibrated imaging device to form a second image;

registering said test pattern image and said second image using region based matching operating on said alignment features; and

measuring said performance parameters by analysing said image analysis features.

Claim 4 (currently amended): The method as claimed in any one of claims 1 [[to]] and 3, wherein different colour channels in said test pattern image and said second image are separately registered and analysed.

Claim 5 (currently amended): The method as claimed in any one of claims 1 ~~to 4~~ and 3, wherein said region based ~~mapping~~ matching uses overlapping blocks of image data from said test pattern image and said second image.

Claim 6 (currently amended): The method as claimed in any one of claims 1 ~~to 5~~ and 3, wherein said analysis features are said alignment features.

Claim 7 (currently amended): The method as claimed in any one of claims 1 ~~to 6~~ and 3, wherein said region based matching is block based correlation.

Claim 8 (currently amended): The method as claimed in any one of claims 1 ~~to 6~~ and 3, wherein said registering step comprises the sub-steps of:

performing block based correlation on said test pattern image and said second image to determine a displacement map for mapping pixels of said test pattern image to corresponding pixels of said second image;

interpolating said displacement map to form a distortion map; and

warping said test pattern image using said distortion map.

Claim 9 (currently amended): The method as claimed in any one of claims 1 ~~to 8~~ and 3, wherein said ~~analyzing~~ measuring step includes comparing pixel values of corresponding pixels in said test pattern image and second image after said images have been registered.

Claim 10 (currently amended): The method as claimed in any one of claims 1 ~~to 9~~ and 3, wherein said test pattern image is generated by the steps of:

(a) dividing an image area into a predetermined number of areas;

(b) dividing each of said areas into smaller areas;

(c) within each area, assigning properties to at least one of said smaller areas, and designating the remainder of said smaller areas as areas;

(d) generating pixel values for said at least one of said smaller areas, said pixel values being in accordance with said properties; and

(e) repeating steps (b) to (d).

Claim 11 (original): The method as claimed in claim 10, wherein said properties are randomized.

Claim 12 (currently amended): The method as claimed in claim 10 ~~or 11~~, wherein said at least one of said smaller areas is selected randomly.

Claim 13 (currently amended): The method as claimed in ~~any one of claims~~ claim 10 ~~to 12~~, wherein said properties are one or more of:

colour;

slowly varying colour;

pattern with predetermined frequency distribution;

pattern with predetermined orientations; and

pseudo-random noise.

Claim 14 (currently amended): A method ~~of generating a~~ as claimed in claim 1, wherein said test pattern~~, said method comprising~~ image is generated through the steps of:

(a) dividing an ~~image~~ area into a predetermined number of smaller areas;

(b) ~~dividing each of~~ selecting at least of said ~~areas into~~ smaller areas;

(c) ~~within each area, assigning properties to at least one of said~~ generating pixel values for the selected smaller areas, ~~and designating the remainder of said smaller areas as areas~~ said pixel values being in accordance with assigned properties;

(d) ~~generating pixel values for said at least one of said~~ designating each of the unselected smaller areas~~, said pixel values being in accordance with said properties~~ as areas; and

(e) repeating steps [[(b)]] (a) to (d) iteratively for each of the areas.

Claim 15 (original): The method as claimed in claim 14, wherein said properties are randomized.

Claim 16 (currently amended): The method as claimed in claim 14 ~~or 15~~, wherein said at least one of said smaller areas is selected randomly.

Claim 17 (currently amended): The method as claimed in ~~any one of claims~~ claim 14 ~~to 16~~, wherein said properties are one or more of:

colour;

slowly varying colour;

pattern with predetermined frequency distribution;

pattern with predetermined orientations; and

pseudo-random noise.

Claim 18 (original): A method of analysing images, said method comprising the steps of:

receiving first and second images, said second image being a distorted version of said first image;

labeling pixels of said first image with pixel labels;

determining distortion parameters for aligning said first image with said second image;

warping at least said pixel labels using said distortion parameters; and

associating said pixel labels with corresponding pixels in said second image, wherein said labels provide information on a state of pixels in said second image before distortion.

Claim19 (currently amended): The method as claimed in ~~any one of claims~~ claim 10 ~~to 18,~~ wherein a test pattern corresponding to said test pattern image is a dyadic test pattern.

Claim 20 (original): Apparatus for measuring performance parameters of an imaging device, said apparatus comprising:

means for maintaining a test pattern image, said test pattern image comprising alignment features and image analysis features;

means for receiving a second image, said second image being an image captured by said imaging device of a test chart, and said test chart containing a representation of said test pattern image;

means for registering said test pattern image and said second image using region based matching operating on said alignment features; and

means for measuring said performance parameters by analysing said image analysis features.

Claim 21 (original): Apparatus for measuring performance parameters of a printer, said apparatus comprising:

means for maintaining a test pattern image, said test pattern image comprising alignment features and image analysis features;

said printer for printing said test pattern image to form a test chart;

a calibrated imaging device for imaging said test chart to form a second image;

means for registering said test pattern image and said second image using region based matching operating on said alignment features; and

means for measuring said performance parameters by analysing said image analysis features.

Claim 22 (currently amended): Apparatus as claimed in claim 20 wherein said means for ~~generating~~ maintaining a test pattern~~, said apparatus comprising~~ image comprises:

means for dividing an ~~image~~ area into a predetermined number of smaller areas;

means for ~~dividing each~~ selecting at least one of said ~~areas into~~ smaller areas;

means for ~~assigning properties to at least one of said~~ generating pixel values for the selected smaller areas ~~within each area and designating the remainder of said smaller areas as areas~~, said pixel values being in accordance with assigned properties;

means for ~~generating pixel values for said at least one of said~~ designating each of the unselected smaller areas~~, said pixel values being in accordance with said properties~~ as areas; and

means for ~~repeatingly~~ iteratively passing control to said means for dividing ~~each of said areas~~, said means for ~~assigning properties~~ selecting, ~~and~~ said means for generating pixel values, and said means for designating.

Claim 23 (original): Apparatus for analysing images, said apparatus comprising:

means for receiving first and second images, said second image being a distorted version of said first image;

means for labeling pixels of said first image with pixel labels;

means for determining distortion parameters for aligning said first image with said second image;

means for warping at least said pixel labels using said distortion parameters; and

means for associating said pixel labels with corresponding pixels in said second image, wherein said labels provide information on a state of pixels in said second image before distortion.

Claim 24 (currently amended): A computer readable medium ~~comprising~~ storing a computer program for measuring performance parameters of an imaging device, said computer program when executed on a computing device performs the steps of:

maintaining a test pattern image, said test pattern image comprising alignment features and image analysis features;

imaging a test chart using said imaging device to form a second image, said test chart containing a representation of said test pattern image;

registering said test pattern image and said second image using region based matching operating on said alignment features; and

measuring said performance parameters by analysing said image analysis features.

Claim 25 (currently amended): A computer readable medium ~~comprising~~ storing a computer program for measuring performance parameters of a printer, said computer program when executed on a computing device performs the steps of:

maintaining a test pattern image, said test pattern image comprising alignment features and image analysis features;

printing said test pattern image using said printer to form a test chart;

imaging said test chart using a calibrated imaging device to form a second image; registering said test pattern image and said second image using region based matching operating on said alignment features; and

measuring said performance parameters by analysing said image analysis features.

Claim 26 (currently amended): A computer readable medium ~~comprising a computer program for generating a~~ as claimed in claim 24, wherein said test pattern~~, said computer program when executed on a computing device performs~~ image is generated through the steps of:

(a) dividing an image area into a predetermined number of smaller areas;

(b) ~~dividing each~~ selecting at least one of said ~~areas into~~ smaller areas;

(c) ~~within each area, assigning properties to at least one of said~~ generating pixel values for the selected smaller areas, ~~and designating the remainder of said smaller areas as areas~~ said pixel values being in accordance with assigned properties;

(d) ~~generating pixel values for said at least one of said~~ designating each of the unselected smaller areas~~, said pixel values being in accordance with said properties~~ as areas; and

(e) repeating steps [[(b)]] (a) to (d) iteratively for each of the areas.

Claim 27 (currently amended): A computer readable medium ~~comprising~~ storing a computer program for analysing images, said computer program when executed on a computing device performs the steps of:

receiving first and second images, said second image being a distorted version of said first image;

labeling pixels of said first image with pixel labels;

determining distortion parameters for aligning said first image with said second image;

warping at least said pixel labels using said distortion parameters; and

associating said pixel labels with corresponding pixels in said second image, wherein said labels provide information on a state of pixels in said second image before distortion.

Claims 28 - 33 (canceled).